

Investigation of Radionuclide Filtering Technology for Nuclear Thermal Propulsion Engine Testing

Completed Technology Project (2015 - 2016)



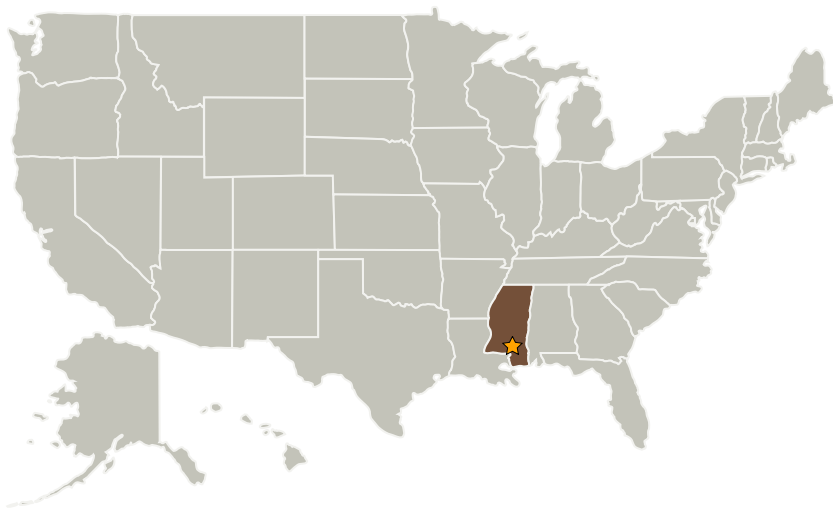
Project Introduction

This effort supports early identification of unfamiliar requirements for new propulsion ground testing and assists in the development of estimates for system cost.

Anticipated Benefits

1) Research existing nuclear effluent filtering technology options for filtering:
a) Identify existing nuclear industry certified hardware options, and their applicability and supporting infrastructure required to support NTP engine ground test operating environments; b) develop corresponding system footprint and cost estimate. 2) Identify NTP engine test environments requiring departure from existing certified filter technology and recommend path for associated technology development.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Stennis Space Center(SSC)	Lead Organization	NASA Center	Stennis Space Center, Mississippi



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Primary U.S. Work Locations

Mississippi

Project Website:

<https://www.nasa.gov/directorates/spacetech/home/index.html>

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Stennis Space Center (SSC)

Responsible Program:

Center Innovation Fund: SSC CIF

Project Management

Program Director:

Michael R Lapointe

Program Manager:

Ramona E Travis

Principal Investigator:

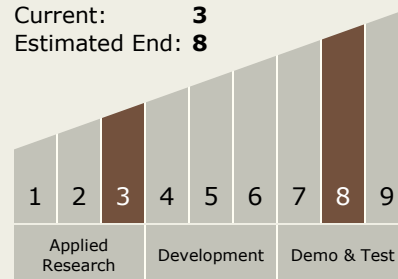
Ke Nguyen

Technology Maturity (TRL)

Start: 3

Current: 3

Estimated End: 8



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Technology Areas

Primary:

- TX01 Propulsion Systems
 - └ TX01.4 Advanced Propulsion
 - └ TX01.4.3 Nuclear Thermal Propulsion

Target Destination

Earth